



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,007	09/22/2003	Nathalie Jager Lezer	05725.1238-00	1694

22852 7590 03/30/2007

FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

VENKAT, JYOTHSNA A

ART UNIT

PAPER NUMBER

1615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
30 DAYS	03/30/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.



**UNITED STATES DEPARTMENT OF COMMERCE**

**U.S. Patent and Trademark Office**

Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
---------------------------------	-------------	---	---------------------

EXAMINER
----------

ART UNIT	PAPER
----------	-------

20070327

DATE MAILED:

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner for Patents**

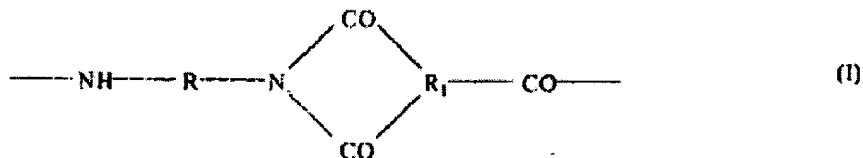
JYOTHSNA A VENKAT Ph. D  
Primary Examiner  
Art Unit: 1615

**DETAILED ACTION**

The reply filed on 1/16/07 is not fully responsive to the prior Office Action because of the following omission(s) or matter(s): Applicants' elected species drawn to vinyl polymers as the "film forming polymers" and aromatic polyimide-amide fibers as species belonging to "rigid fibers". Both the species elected are not **single disclosed** species.

Applicants' claim as "aromatic polyimide-amide fibers" the following formula. This formula includes numerous compounds.

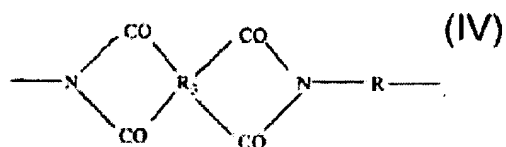
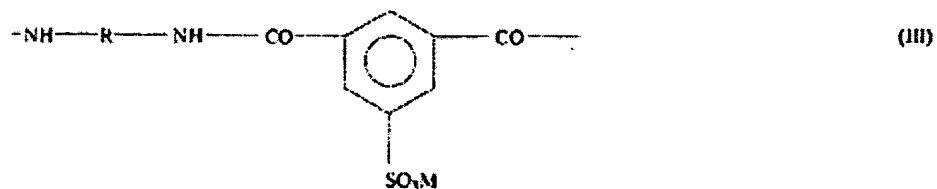
24. The composition according to Claim 1, wherein the substantially rectilinear rigid fibres are aromatic polyimide-amide fibres chosen from aromatic polyimide-amides comprising a repeating unit of formula (I):



and optionally additionally comprising at least one repeating unit chosen from formulae (II), (III), and (IV):

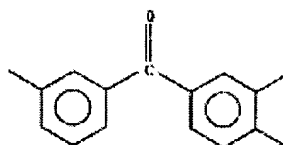


Art Unit: 1615

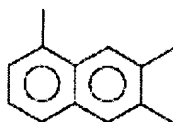


wherein R and R<sub>2</sub>, which may be the same or different, are chosen from divalent aromatic groups, R<sub>1</sub> is chosen from trivalent aromatic groups, R<sub>3</sub> is chosen from tetravalent aromatic groups, and M is chosen from alkali metals and alkaline-earth metals.

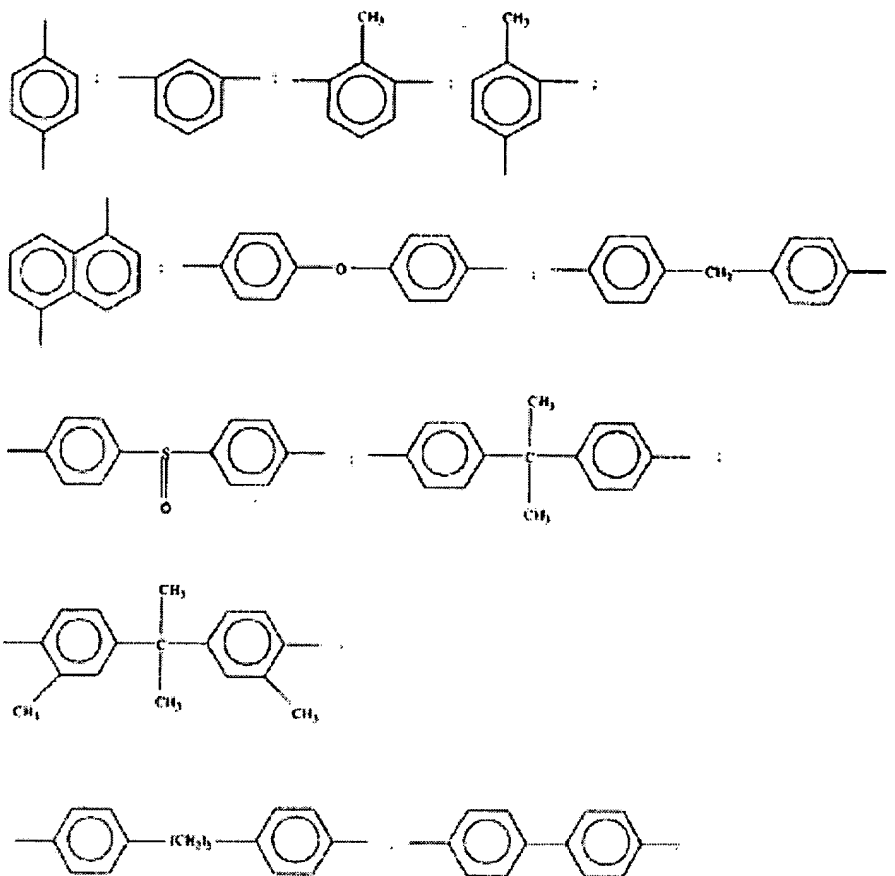
25. The composition according to Claim 24, wherein R<sub>1</sub> is chosen from :



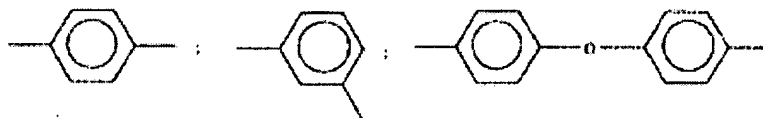
and



26. The composition according to Claim 24, wherein R is chosen from:

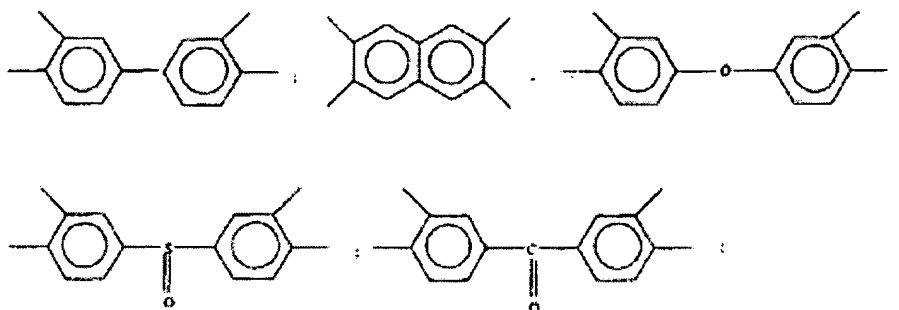


27. The composition according to Claim 24, wherein  $R_2$  is chosen from:

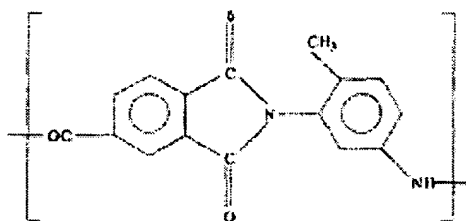


28. The composition according to Claim 24, wherein  $R_3$  is chosen from:

Art Unit: 1615



29. The composition according to Claim 24, wherein the polyimide-amide is obtained by polymerization of tolylene diisocyanate and trimellitic anhydride, and comprises repeating units of formula:



In reply to this office action, applicants' elect single disclosed species.

The same is true for vinyl polymers. Specification describes vinyl polymers.

[0159] The film-forming polymers of the free-radical type may be for example, vinyl polymers or copolymers, such as acrylic polymers.

[0160] The vinyl film-forming polymers may result from the polymerization of ethylenically unsaturated monomers having at least one acid group and/or esters of these acid monomers and/or amides of these acid monomers.

[0161] As a monomer carrying an acid group, there may be used  $\alpha,\beta$ -ethylenic unsaturated carboxylic acids such as acrylic acid, methacrylic acid, crotonic acid, maleic acid and itaconic acid. For example, (meth)acrylic acid and itaconic acid may be used.

[0162] The esters of acid monomers may be chosen from the esters of (meth)acrylic acid (also called (meth)acrylates), for example alkyl, such as  $C_1$ - $C_{30}$ , for instance  $C_1$ - $C_{20}$ , alkyl, (meth)acrylates, aryl, such as  $C_6$ - $C_{10}$  aryl, (meth)acrylates, hydroxyalkyl, for instance  $C_2$ - $C_8$  hydroxyalkyl, (meth)acrylates.

[0163] Among the alkyl (meth)acrylates, non-limiting mention may be made of methyl methacrylate, ethyl methacrylate, butyl methacrylate, isobutyl methacrylate, 2-ethylhexyl methacrylate, lauryl methacrylate and cyclohexyl methacrylate.

[0164] Among the hydroxyalkyl (meth)acrylates, non-limiting mention may be made of hydroxyethyl acrylate, 2-hydroxypropyl acrylate, hydroxyethyl methacrylate and 2-hydroxypropyl methacrylate.

[0165] Among the aryl (meth)acrylates, non-limiting mention may be made of benzyl acrylate and phenyl acrylate.

[0166] According to the present disclosure, the alkyl group of the esters may be either fluorinated or perfluorinated, that is to say that some or all of the hydrogen atoms of the alkyl group may be substituted with fluorine atoms.

[0167] As amides of the acid monomers, there may be mentioned for example (meth)acrylamides, such as N-alkyl(meth)acrylamides, and for instance, of a  $C_2$ - $C_{12}$  alkyl. Among the N-alkyl(meth)acrylamides, there may be mentioned N-ethylacrylamide, N-t-butylacrylamide, N-t-octylacrylamide and N-undecylacrylamide.

[0168] The vinyl film-forming polymers may also result from the homopolymerization or copolymerization of monomers chosen from vinyl esters and

Art Unit: 1615

styrene monomers. For example, these monomers may be polymerized with acid monomers and/or their esters and/or their amides, such as those mentioned above.

[0169] As examples of vinyl esters, there may be mentioned vinyl acetate, vinyl neodecanoate, vinyl pivalate, vinyl benzoate and vinyl t-butyl benzoate.

Thus the elected species is not single disclosed species. See 37 CFR 1.111. Since the above-mentioned reply appears to be *bona fide*, applicant is given **ONE (1) MONTH or THIRTY (30) DAYS** from the mailing date of this notice, whichever is longer, within which to supply the omission or correction in order to avoid abandonment. **EXTENSIONS OF THIS TIME PERIOD MAY BE GRANTED UNDER 37 CFR 1.136(a).**

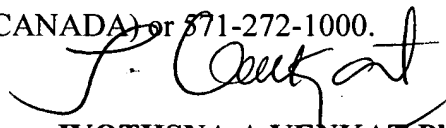
Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTHSNA A. VENKAT Ph. D whose telephone number is 571-272-0607. The examiner can normally be reached on Monday-Friday, 10:30-7:30:1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1615

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**JYOTHSNA A VENKAT Ph. D**  
**Primary Examiner**  
**Art Unit 1615**

\*\*\*